To: CN=John Senn/OU=DC/O=USEPA/C=US@EPA;CN=Travis Loop/OU=DC/O=USEPA/C=US@EPA[]; N=Travis Loop/OU=DC/O=USEPA/C=US@EPA[]
Cc: CN=Alisha Johnson/OU=DC/O=USEPA/C=US@EPA;CN=David Cohen/OU=DC/O=USEPA/C=US@EPA[]; N=David Cohen/OU=DC/O=USEPA/C=US@EPA[]
From: CN=Julia Valentine/OU=DC/O=USEPA/C=US
Sent: Mon 6/18/2012 8:24:48 PM
Subject: Fw: Denver Post blog: EPA results on fracking in Wyoming continue to confound

Mark Jaffe
Hotspot
fracking
oil
natural gas
New York Times story last week about Gov. Cuomo's plan to limit natural gas development
Wyoming
EPA study
The agency did find high concentrations of benzene, xylenes, gasoline and diesel in ground water samples
Encana Corp., which owns 123 gas wells in Pavillion has disputed the EPA findings,
(embedded image)
(embedded image)

FYI, in case you hadn't already seen this.

EPA results on fracking in Wyoming continue to confound
By Mark Jaffe
The Denver Post
June 18, 2012

Napoleon Sarony - Library of Congress
Oscar Wilde weighs in on fracking

"The truth is rarely pure and never simple"
— Oscar Wilde
When it comes to the debate over the use of hydraulic fracking – a process in which water, sand and chemicals are pumped into a well under pressure to crack rock and release oil and natural gas — I'm with Oscar.
The details can be so complex that fracking's opponents and supporters both lose patience and simply retire to their corners, wait for the bell to ring and begin slugging it out. But what gets lost when the details get lost is the truth.
Consider this paragraph from the New York Times story last week about Gov. Cuomo's plan to limit natural gas development to a single tier of economically depressed counties on the Pennsylvania border: "But concerns have persisted about the chemicals used in the process. Last year, for instance, federal regulators linked fracking to a contaminated water supply in part of central Wyoming."
That, however, isn't precisely what the Environmental Protection Agency found. What did they find in Pavillion, Wyoming?
The report was issued in December and while it may be a little fastidious to go over this material again, this is reminiscent of the story about the terrible soprano who once sang at La Scala.
After finishing an aria, the crowd erupted shouting, "encore, encore." So she sang it again. Again the

crowd shouted for another encore. The orchestra maestro turned around and yelled at the audience, “Idiots, what’s wrong with you, she’s terrible.”
“She’s got to sing it till she gets it right,” someone in the audience yelled back.
And so in that spirit:
The EPA study was prompted by complaints from residents in Pavillion that there problems with their well water.
The agency did find high concentrations of benzene, xylenes, gasoline and diesel in ground water samples and monitoring wells – the likely source, however, wasn’t facking but old, leaking surface waste pits. Methane and dissolved hydrocarbons were also found in several domestic wells.
Most of these wells were about 100 feet deep, but pollutants in deeper domestic wells led EPA to drill two test wells to about 980 feet – roughly twice the depth of the deepest drinking water wells.
It was in these test wells that EPA detected synthetic organic compounds associated with fracking – such as isopropanol and diethylene glycol. Isopropanol is used in a biocide and diethylene glycol is used in a foaming agent and in a solvent.
The organic chemicals were more numerous and at higher concentrations in the deeper of the two monitoring wells.
The Pavilion gas wells were drilled to a depth of about 1,200 feet, and surface casing — pipe to protect groundwater — went to about 360 feet, according to the EPA report.
So the question is how did those chemicals make it through 200 feet of rock to the test wells?
There was a suggestion of upward and lateral migration from the fracked wells, the EPA said, and while the exact hydraulic links weren’t known there were flowing conditions.
“Alternative explanations were carefully considered to explain individual sets of data,” EPA said. “However, when considered together with other lines of evidence, the data indicates likely impact to ground water that can be explained by hydraulic fracturing.”
Encana Corp., which owns 123 gas wells in Pavillion has disputed the EPA findings, arguing that the fluids used in drilling the test wells may have contaminated them.
After Encana bought the existing well field in 2005, the company discovered the old pits were leaking, reported it to Wyoming oil and gas regulators and started a clean-up.
The EPA found lots of problems in the Pavillon field – poorly constructed wells, casing that did not go down far enough to protect aquifers and the leaking pits –underscoring that there are lots of ways oil and gas development can pollute.
But the findings on fracking while suggestive and important are limited. Water supplies were not contaminated by frack fluids and fracking did not turn out to be the cause per se of the problems that prompted it the residents of Pavillion to seek the EPA’s help.

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